

**RECEIVED**  
**CENTRAL FAX CENTER****JUN 26 2008**

10/531,490

**REMARKS**

The Applicant would like to thank the Examiner for the telephone interview on June 17, 2008 during which minor amendments to the independent claims were briefly discussed. Specifically discussed were amendments to claim 33 clarifying that the location of indentations is in the external surface of the nose and that the first and second straight edge portions or sidewalls taper away from one another as those straight edge portions or sidewalls extend from the leading portion to the trailing portion of the perimeter. If necessary or desirable, the Examiner is respectfully requested, upon further consideration of the above amendments and accompanying remarks, to contact the Applicant to discuss any additional amendments which will advance prosecution of this application.

In the outstanding official action, claims 14-19, 21-22, 27-30 and 32-33 are rejected, under 35 U.S.C. § 103, as being unpatentable over U.S. Patent No. 5,133,261 to Kelsey (hereinafter Kelsey '261) in view of either FR Patent No. 2820495 (hereinafter FR '495) or FR Patent No. 852603 (hereinafter FR '603) and further in view of U.S. Patent No. 5,259,320 to Brooks (hereinafter Brooks '320). The Applicant acknowledges and respectfully traverses all of the raised obviousness rejections in view of the above amendments and the following remarks.

Kelsey '261 relates to a bullet 10 having a leading nose section 13 and a trailing cylindrical section 12. The nose section 13 has an annular concave surface 17, which extends from a leading end 15 to a position 18 along the cylindrical section 12. The nose section 13 further includes a number of curved ribs 20, which extend radially from the concave surface 17 to an outer edge 21 and axially from the leading end 15 toward the trailing section 12.

Each of the curved ribs 20 has a convex sidewall 25 and a concave sidewall 26 and are arranged such that the convex sidewall 25 of one rib 20 and the concave sidewall 26 of a neighboring rib 20 form a curved channel therebetween. Thus, these ribs 20 form a number

6/26/08 4:22 AM

- 6 -

10/531,490

of curved channels along the nose section 13 of the bullet 10. *These curved ribs 20 and curved channels act to improve rotation of the bullet 10 during flight.*

As can be best seen in FIGS. 1 and 2 of Kelsey '261, the ribs 20 and the channels are arranged on the bullet 10 such that a plane that extends axially and is coincident with the axis 29 bisects the bullet 10. Such a plane is seen in FIG. 1 along lines 2-2. When viewing a side sectional view of the bullet 10 taken along the plane, such as that shown in FIG. 2, the bullet 10 is symmetrical.

However, as best shown in FIG. 1, since each of the ribs 20 and the channels are curved as they radially extend it is impossible for a plane, that is coincident with the axis 29, to radially extend through a respective channel such that the channel is essentially symmetrical and bisects the corresponding indentation. This is contrary to the assertion made by the Examiner in rejecting the above noted claims.

FR '495 relates to a projectile 1 having a leading nose section 3 and a cylindrical trailing section. The nose section 3 includes a number of notches 6. Each of these notches 6 includes at least two planar surfaces. The notches 6, shown in at least FIGS. 1-3, include three planar surfaces. Two of the planar surfaces connect to each other and form an axially extending line 7 and the third planar surface 8 extends radially normal to the central axis and to the two other surfaces. FIGS. 4 and 5 show that the notches 6 include two planar surfaces that connect to each other at a point (FIG. 4).

FR '603 relates to a projectile 2 having a leading (*avant*) portion 3 and a trailing (*arrière*) portion 4. The trailing portion 4 of the projectile 2 includes a number of grooves 11 that either extend only axially between the leading portion 3 into the trailing portion 4 or axially and radially between the leading portion 3 into the trailing portion 4.

Brooks '320 relates to a slug 120 and a method of manufacturing a bullet from the slug 120. Following the disclosed steps of manufacture, the bullet has a leading nose portion 123 and a trailing portion 124. It is important to note that the exterior shape and

6/26/08 4:22 AM

10/531,490

surface of the bullet, as taught by Brooks '320, appear to be common when compared to a majority of related prior art bullets. In addition, it should be noted that the "indentation" shown in FIG. 46 is a cavity 285 that is completely enclosed within the nose portion 123 of the bullet.

Furthermore, none of the Figures of Brooks '320 show a bullet with an exterior surface<sup>104</sup> of the nose portion 123 having indentations therein. In fact, at least FIGS. 24, 28, 29 and 30 show side elevation views of the manufactured bullet having a smooth exterior nose surface.

In the outstanding official action, the reason for combining Kelsey '261 with either FR '495 or FR '603 was due to Kelsey's '261 admitted lack of indentations that are each essentially symmetrical to a respective longitudinal axial plane coincident with the projectile's central longitudinal axis, which bisects the respective indentation. Further, the reason for combining Brooks '320 with the above combination was due to admitted lack in Kelsey '261 of indentations having a trailing portion, which is curved, and a portion of each opposed sidewall being straight and tapering toward a leading portion of the respective indentation.

The Applicant asserts that the presently claimed invention is distinctly different from the subject matter of the applied art, either alone or in any permissible combination thereof, for a variety of reasons and that the combination of the cited references is *improper*. As the Examiner is undoubtedly aware, an obviousness rejection under 35 U.S.C. § 103(a) can be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so. *In re Kahn*, 441 F.3d 977, 986, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006).

Although the Supreme Court stated in *KSR International Co. v. Teleflex Inc.* 550 U.S. at 11, 82 USPQ2d at 1391 that the Federal Circuit had erred by applying the teaching-suggestion-motivation test in an overly rigid and formalistic manner when ruling to overturn the District Court's finding of obviousness, it is well established and summarized in the Manual of Patent Examining Procedure § 2143.01 (V) and (VI) that if the proposed modification would

v2008-022AM

10/531,490

render the prior art invention being modified unsatisfactory for its intended purpose then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984) and if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

The Applicant asserts that first, modifying the bullet of Kelsey '261 as proposed to include the indentations, as disclosed by either FR '495 or FR '603 and Brooks '320 (hereinafter "the Supporting References") would render the Kelsey '261 bullet unsatisfactory for its intended purpose. Second, modifying or combining the supposed indentations as disclosed by any of the Supporting References with the bullet of Kelsey '261 would change the principle of operation of the Kelsey '261 bullet. Therefore, the Applicant avers that there is no suggestion or motivation to make the proposed modification, as suggested by the Examiner. Moreover, the teachings of Kelsey '261, Brooks '320 and either FR '495 or FR '603 are not sufficient to render the claims *prima facie* obvious. The Applicant respectfully requests withdrawal of the pending 35 U.S.C. § 103 rejections and withdrawal of the finality of the outstanding official action.

As summarized above, Kelsey '261 relates to a bullet 10 having a leading nose section 13 with a number of curved ribs 20, which form a number of channels that extend radially from the concave surface 17 to an outer edge 21 and axially from the leading end 15 toward the trailing section 12. The intended purpose of the Kelsey '261 bullet is to provide an improved bullet that "incapacitates more efficiently" (column 1, lines 19-20).

This intended purpose is achieved by the curved ribs 20 and curved channels, which provide a number of benefits over the prior art of that time. First, the ribs 20 substantially increase the "area of sharp edges on the forward section of the projectile . . . to produce more severe cuts and lacerations in a target wound channel thereby causing profuse bleeding."

06/26/2008 4:22 AM

- 9 -

10/531,490

Second, the ribs 20 "produce a more optimal penetration capability of the bullet into barrier and target mediums". Third, the curved ribs 20 and channels "offers less atmospheric resistance to the flight of the bullet" such that "projectile stability is achieved". Finally, the curved ribs 20 and channels are said to "effect a dramatic increase in the radially outward flow of target mass . . . into the target wound channel . . . thereby enlarging the cuts and laceration in the wound channel" (column 2, lines 41-63). In summation, the Kelsey '261 bullet increases the cutting surface, increases bullet penetration, enhances rotation during flight and enlarges the wound channel to achieve the intended purpose of providing an improved bullet that "incapacitates more efficiently".

It is respectfully submitted that the indentations and the arrangement of the indentations taught by the Supporting References, if combined with the bullet of Kelsey '261, would render the Kelsey '261 bullet unsatisfactory for its intended purpose and change the principle of operation of Kelsey '261. First, the indentations of the supporting references are formed within the surface of the nose such that no ribs or fins "extend from the curved annular surface" of the nose as is taught by Kelsey '261 (column 4, line 8). By placing the indentations of the supporting references in the nose of the Kelsey '261 bullet, the Kelsey '261 bullet would lose its increased area of sharp edges on the leading portion of the bullet.

Second, the Applicant submits that there is no indication in the Supporting References nor in Kelsey '261 that the indentations of the supporting references when located in the surface of the nose of the Kelsey '261 bullet rather than ribs extending therefrom would optimize the bullets penetration into barrier or target mediums.

Third, the Applicant again submits that there is no indication in the Supporting References nor in Kelsey '261 that the indentations of the Supporting References when located in the surface of the nose of the Kelsey '261 bullet instead of the curved ribs and channels located therein would offer less atmospheric resistance to the flight of the bullet. In fact, the indentations of FR '495 would increase atmospheric resistance. As seen in FIG. 2

06/28/2008 13:40

- 10 -

10/531,490

the leading profile of the projectile includes triangular surfaces, which are normal to the flight of the projectile. This would substantially slow the bullet and increase its atmospheric resistance.

Finally, there is no indication in the Supporting References nor in Kelsey '261 that the indentations of the supporting references when located in the surface of the nose of the Kelsey '261 bullet instead of the curved ribs and channels located therein would enlarge the cuts and laceration in the wound channel. The indentations of the supporting references in the surface of the nose do not change the general overall shape and characteristics of the nose such that a wound channel, created by this bullet with these indentations, would be enlarged.

For these reasons the Applicant adamantly asserts that the indentations and the arrangement of the indentations taught by the Supporting References, when combined with the bullet of Kelsey '261, would render the Kelsey '261 bullet unsatisfactory for its intended purpose and change the principle of operation of Kelsey '261. As such, the Applicant again respectfully requests withdrawal of the pending 35 U.S.C. § 103 rejections and withdrawal of the finality of the outstanding official action.

In order to emphasize the distinctions between the presently claimed invention and the applied art, the independent claim 14 of this application now recites the features of

each respective indentation being disposed in an external surface of the nose  
... each indentation having a curved profile from a first edge to a second edge  
symmetrical with respect to one of the respective central longitudinal axis of the  
projectile and the respective longitudinal axial plane, a trailing portion and a  
leading portion of each of the at least two indentations (14, 24) is curved and  
a portion of each opposed sidewall is straight and connects the leading portion  
and the trailing portion and the portion of each opposed sidewall tapers away  
from one another when extending from the leading portion to the trailing portion  
of the indentation

02000-0221A

10/531,490

and the independent claims 27 and 33 of this application now recites the features of "each indentation being disposed in an external surface of the nose . . . the first and the second straight edge sidewalls taper away from one another when extending from the leading portion to the trailing portion". Such features are believed to clearly and patentably distinguish the presently claimed invention from all of the art of record, including the applied art.

Claims 20, 23-26 and 30-31 are rejected, under 35 U.S.C. § 103, as being unpatentable over Kelsey '261 in view of either FR '495 or FR '603 and Brooks '320 and further in view of U.S. Patent No. 4,450,769 to Moser, U.S. Patent No. 5,385,100 or Corzine et al. The Applicant acknowledges and respectfully traverses the raised obviousness rejection in view of the above amendments and the following remarks.

The Applicant acknowledges that the additional references of Moser '769 and Corzine '100 may arguably relate to the features indicated by the Examiner in the official action. Nevertheless, the Applicant respectfully submits that the combination of the base reference with this additional art still fails to in any way teach, suggest or disclose the above distinguishing features of the presently claimed invention. As such, all of the raised rejections should be withdrawn at this time in view of the above amendments and remarks.

If any further amendment to this application is believed necessary to advance prosecution and place this case in allowable form, the Examiner is courteously solicited to contact the undersigned representative of the Applicant to discuss the same.

In view of the above amendments and remarks, it is respectfully submitted that all of the raised rejections should be withdrawn at this time. If the Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding rejections or applicability of the Kelsey '261, FR '495, FR '603, Brooks '320, Moser '769 or Corzine '100 references, the Applicant respectfully requests the Examiner to indicate the specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present

06/26/2008 1:44 PM

10/531,490

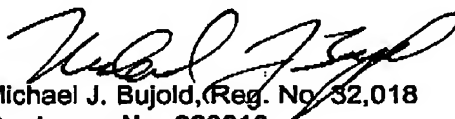
in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

In view of the foregoing, it is respectfully submitted that the raised rejection(s) should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,



Michael J. Bujold, Reg. No. 32,018  
Customer No. 020210  
Davis Bujold & Daniels, P.L.L.C.  
112 Pleasant Street  
Concord, NH 03301-2931  
Telephone 603-226-7490  
Facsimile 603-226-7499  
E-mail: [patent@davisandbujold.com](mailto:patent@davisandbujold.com)

02608 4:22 AM

- 13 -